# Clinica Chimica Acta, Vol. 175

# Author index

Abe, T., see Usui, A. (175) 109

Ackerman, B., see Chen, B.H. (175) 107

Al-Kabban, M., see Reglinski, J. (175) 285

Ando, Y., see Inagaki, M. (175) 315

Angeli, G., see Colloredo-Mels, G. (175) 189

Ariga, H., see Mitamura, T. (175) 277

Armbruster, D.A. and Gruemer, H.-D.

The regional variability of enzymes in the brain: relevance to CSF enzyme determinations (175) 227

Baba, S., see Oimomi, M. (175) 349
Basu, A., see Krall, E.A. (175) 1
Bellati, G., see Colloredo-Mels, G. (175) 189
Bellem, A.C., see Khosravi, M.J. (175) 267
Bertone, V., see Colloredo-Mels, G. (175) 189
Bettale, G., see Colloredo-Mels, G. (175) 189
Bierme, R., see Brisson-Lougarre, A. (175) 121
Bijleveld, C.M.A., see Koopman, B.J. (175) 143
Blackie, R.A.S., see Hawkins, R.A. (175) 89

Brisson-Lougarre, A., Vergnes, H., Grozdea, J. and Bierme, R. Isoelectric focusing of human neutrophil al-

Isoelectric focusing of human neutrophil alkaline phosphatase isoenzymes in agarose gel (175) 121

Brivet, M., see Soni, T. (175) 97 Brodbeck, U., see Sorensen, K. (175) 337 Brosset, B., Myara, I., Fabre, M. and Lemonnier,

Plasma prolidase and prolinase activity in alcoholic liver disease (175) 291

Chalmers, R.A., see Tracey, B.M. (175) 79
 Chan, M.A., see Khosravi, M.J. (175) 267
 Chen, B.H., Taylor, E.H., Kennedy, E., Ackerman, B., Olsen, K. and Pappas, A.A.
 Total and free quinidine by fluorescence polarization immunoassay and comparison with high performance liquid chromatography (175) 107

Cheng, K.N., see Tracey, B.M. (175) 79
Classen, H.-G., see Stein, C. (175) 167
Colloredo-Mels, G., Bettale, G., Bellati, G., Guanziroli, M., Bertone, V., Angeli, G. and Idéo, G.

gamma-Glutamyl-transpeptidase in diabetics: a case control study (175) 189 Coxon, R.E., Rae, C., Gallacher, G. and Landon, J. Development of a simple, fluoroimmunoassay for paraguat (175) 297

Diamandis, E.P., see Khosravi, M.J. (175) 267 Driskell, W.J., see Gunter, E.W. (175) 329

Elia, M., see Fuller, N.J. (175) 199
English, J.L. and Hambidge, K.M.
Plasma and serum zinc concentrations: effect
of time between collection and separation
(175) 211

Fabre, M., see Brosset, B. (175) 291 Fex, G., see Jerntorp, P. (175) 135 Fuller, N.J. and Elia, M.

Factors influencing the production of creatinine: implications for the determination and interpretation of urinary creatinine and creatine in man (175) 199

Furihata, C., see Huang, S.C. (175) 37

Gallacher, G., see Coxon, R.E. (175) 297 Glew, R.H., see Krall, E.A. (175) 1 Gloninger, M.F., see Krall, E.A. (175) 1 Grozdea, J., see Brisson-Lougarre, A. (175) 121 Gruemer, H.-D., see Armbruster, D.A. (175) 227 Guanziroli, M., see Colloredo-Mels, G. (175) 189 Gunter, E.W., Driskell, W.J. and Yeager, P.R. Stability of vitamin E in long-term stored serum (175) 329

Hachisuka, K., see Usui, A. (175) 109
Hafkenscheid, J.C.M., see Verhoeff, P.M.M. (175) 129

Hambidge, K.M., see English, J.L. (175) 211 Hanano, M., see Takahashi, H. (175) 217 Hart, A.A.M., see Van Zanten, A.P. (175) 157 Hashida, S., Ishikawa, E., Nakao, K., Mukoyama, M. and Imura, H.

Enzyme immunoassay for a-human atrial natriuretic polypeptide — direct measurement of plasma level (175) 11 Hashimoto, T., see Shimozawa. N. (175) 345

Hawkins, R.A., Killen, E., Tesdale, A.L., Sangster. K., Thomson, M., Steele, R.J.C. and Blackie, R.A.S.

Oestrogen receptors, lactate dehydrogenase and cellularity in human breast cancer (175)

Hirayama, C., see Ihara, H. (175) 51

Huang, S.C., Miki, K., Furihata, C., Ichinose, M., Shimizu, A. and Oka, H.

Enzyme-linked immunosorbent assays for serum pepsinogens I and II using monoclonal antibodies - with data on peptic ulcer and gastric cancer (175) 37

Humphries, L., see Krall, E.A. (175) 1

Ichinose, M., see Huang, S.C. (175) 37 Idéo, G., see Colloredo-Mels, G. (175) 189

Ihara, H., Imamura, T., Kunitake, T. and Hirayama, C.

Homogeneous immunoassay based on dihexadecyl-dimethylammonium bilayer membranes (175) 51

Imamura, T., see Ihara, H. (175) 51

Imura, H., see Hashida, S. (175) 11 Inagaki, M., Nakajima, M., Ando, Y., Takashima,

S., Takeshita, K., Tanaka, S., Tamura, H. and Ohavashi T

Measurement of endotoxin in cerebrospinal fluid from neonates and infants using a new endotoxin-specific chromogenic test (175) 315 Ioannou PC

A more simple, rapid and sensitive fluorimetric method for the determination of isoniazid and acetylisoniazid in serum. Application for acetylator phenotyping (175) 175

Ishikawa, E., see Hashida, S. (175) 11 Iwasaki, N., see Mitamura, T. (175) 277 Iwata, H., see Oda, O. (175) 321

Jeppsson, J.-O., see Jerntorp, P. (175) 135 Jerntorp, P., Sundkvist, G., Fex, G. and Jepps-

Clinical utility of serum fructosamine in diabetes mellitus compared with hemoglobin A<sub>1c</sub> (175) 135

Kanamono, Y., see Oda, O. (175) 321

Kancir, C.B., Petersen, P.H., Madsen, T. and Olesen, A.S.

In vivo and in vitro ionized calcium variations induced by acute respiratory acid base disturbances (175) 307

Kato, K., see Usui, A. (175) 109

Kelley, R.I. and Morton, D.H.

3-Hydroxyoctanoic aciduria: identification of a new organic acid in the urine of a patient with non-ketotic hypoglycemia (175) 19

Kennedy, E., see Chen, B.H. (175) 107

Khosravi, M.J., Chan, M.A., Bellem, A.C. and Diamandis, E.P.

A sensitive time-resolved immunofluorometric assay of ferritin in serum with monoclonal antibodies (175) 267

Killen, E., see Hawkins, R.A. (175) 89

Koopman, B.J., Kuipers, F., Bijleveld, C.M.A., Van der Molen, J.C., Nagel, G.T., Vonk, R.J. and Wolthers, B.G.

Determination of cholic acid and chenodeoxycholic acid pool sizes and fractional turnover rates by means of stable isotope dilution technique, making use of deuterated cholic acid and chenodeoxycholic acid (175) 143

Krall, E.A., Basu, A., Gloninger, M.F., Glew, R.H. and Humphries, L. Serum lysosomal hydrolases in cystic fibrosis

(175) 1

Kuipers, F., see Koopman, B.J. (175) 143 Kunitake, T., see Ihara, H. (175) 51

Landon, J., see Coxon, R.E. (175) 297 Lau, B.W.C. and Valdes, Jr., R.

Criteria for identifying endogenous compounds as digoxin-like immunoreactive factors in humans (175) 67

Lemonnier, A., see Brosset, B. (175) 291 Lemonnier, A., see Soni, T. (175) 97

Madsen, T., see Kancir, C.B. (175) 307 Maeda, K., see Oda, O. (175) 321 Matsuda, H., see Mitamura, T. (175) 277

Matsumiya, H., see Mitamura, T. (175) 277

Miki, K., see Huang, S.C. (175) 37

Mitamura, T., Ohno, S., Ariga, H., Ohsaka, T., Iwasaki, N., Matsuda, H. and Matsumiya, H. Lipoprotein cholesterol concentrations in patients with Behçet's disease (175) 277

Miura, T., see Oda, O. (175) 321 Miyata, S., see Oda, O. (175) 321 Moatti, N., see Soni, T. (175) 97

Morton, D.H., see Kelley, R.I. (175) 19

Mukoyama, M., see Hashida, S. (175) 11 Myara, I., see Brosset, B. (175) 291

Nagai, Y. and Yoshiba, M.

Studies on serum immunoreactive prolyl 4hydroxylase in liver diseases - its elevation both in hepatocellular damage and cholestatic diseases (175) 27

Nagel, G.T., see Koopman, B.J. (175) 143 Nakajima, M., see Inagaki, M. (175) 315

Nakao, K., see Hashida, S. (175) 11

Nelson, J.E. and Ruo, T.I.

Assay of stable isotope labelled urea in biological fluids by selected ion monitoring (175)

Nooven, W.J., see Van Zanten, A.P. (175) 157 Norgaard-Pedersen, B., see Sorensen, K. (175)

Obayashi, T., see Inagaki, M. (175) 315

Oda, O., Maeda, K., Yamaga, H., Kanamono, Y., Iwata, H., Miura, T., Yoshida, M., Miyata, S., Ohta, K. and Yamanaka, N. Detection and purification of an abnormal

protein from plasma of patients with rheumatoid arthritis (175) 321

Ohkawa, J., see Oimomi, M. (175) 349

Ohno, S., see Mitamura, T. (175) 277

Ohsaka, T., see Mitamura, T. (175) 277 Ohta, K., see Oda, O. (175) 321

Oimomi, M., Ohkawa, J., Saeki, S. and Baba, S. Letter to the Editor (175) 349

Oka, H., see Huang, S.C. (175) 37

Olesen, A.S., see Kancir, C.B. (175) 307

Olsen, K., see Chen, B.H. (175) 107

Ongerboer de Visser, B.W., see Van Zanten, A.P. (175) 157

Orii, T., see Shimozawa, N. (175) 345

Osterloh, J. and Yu, S.

Simultaneous ion-pair and partition liquid chromatography of acetaminophen, theophylline and salicylate with application to 500 toxicologic specimens (175) 239

Pappas, A.A., see Chen, B.H. (175) 107 Paus, E., see Sorensen, K. (175) 337 Peters, F.P.A.M.N., see Verhoeff, P.M.M. (175) 129

Petersen, P.H., see Kancir, C.B. (175) 307 Petrén, S. and Vesterberg, O.

Concentration differences in isoforms of transferrin in blood from alcoholics during abuse and abstinence (175) 183

Rae, C., see Coxon, R.E. (175) 297 Reglinski, J., Smith, W.E., Suckling, C.J., Al-Kabban, M., Stewart, M.J. and Watson, I.D. Doxorubicin-induced altered glycolytic patterns in the leukemic cell studied by proton spin echo NMR (175) 285

Rosankiewicz, J., see Tracev, B.M. (175) 79 Ruo, T.I., see Nelson, J.E. (175) 59

Saeki, S., see Oimomi, M. (175) 349 Sangster, K., see Hawkins, R.A. (175) 89 Schwedt, G., see Stein, C. (175) 167 Shibata, A., see Takahashi, H. (175) 113 Shibata, A., see Takahashi, H. (175) 217 Shimizu, A., see Huang, S.C. (175) 37 Shimozawa, N., Suzuki, Y., Orii, T. and Hashimoto, T. Letter to the Editor (175) 345

Smith, W.E., see Reglinski, J. (175) 285 Solomon, L.R.

Effects of acetaldehyde on human red cell metabolism: evidence for the formation of enzyme inhibitors (175) 249

Soni, T., Brivet, M., Moatti, N. and Lemonnier,

The Philadelphia variant of galactokinase in human erythrocytes: physicochemical and catalytic properties (175) 97

Sorensen, K., Brodbeck, U., Paus, E. and Norgaard-Pedersen, B. An enzyme antigen immunoassay for the determination of neuron-specific enolase in

serum samples (175) 337 Stacey, T.E., see Tracey, B.M. (175) 79 Steele, R.J.C., see Hawkins, R.A. (175) 89 Steigstra, H., see Verhoeff, P.M.M. (175) 129 Stein, C., Classen, H.-G. and Schwedt, G. Kinetic studies on nitrite and nitrate in rats

by ion-pair chromatography (175) 167 Stewart, M.J., see Reglinski, J. (175) 285 Suckling, C.J., see Reglinski, J. (175) 285

Sundkvist, G., see Jerntorp, P. (175) 135 Suzuki, Y., see Shimozawa, N. (175) 345

Takahashi, H., Hanano, M., Tatewaki, W. and Shibata, A.

Fast functional assay of protein C in whole plasma using a snake venom activator: evaluation in patients with congenital and acquired protein C deficiencies (175) 217

Takahashi, H., Yoshino, N. and Shibata, A. Measurement of platelet factor 4 and  $\beta$ thromboglobulin by an enzyme-linked immunosorbent assay (175) 113

Takashima, S., see Inagaki, M. (175) 315 Takeshita, K., see Inagaki, M. (175) 315 Tamura, H., see Inagaki, M. (175) 315 Tanaka, S., see Inagaki, M. (175) 315 Tatewaki, W., see Takahashi, H. (175) 217 Taylor, E.H., see Chen, B.H. (175) 107

Tesdale, A.L., see Hawkins, R.A. (175) 89
Thomson, M., see Hawkins, R.A. (175) 89
Tracey, B.M., Cheng, K.N., Rosankiewicz, J.,
Stacey, T.E. and Chalmers, R.A.
Urinary C<sub>6</sub>-C<sub>12</sub> dicarboxylic acylcarnitines
in Reye's syndrome (175) 79
Twijnstra, A., see Van Zanten, A.P. (175) 157

Usui, A., Kato, K., Abe, T., Hachisuka, K. and Yamaguchi, A. Creatine kinase BB and neuron-specific γ-enolase are enhanced in leiomyosarcoma (175)

Valdes, Jr., R., see Lau, B.W.C. (175) 67 Van der Molen, J.C., see Koopman, B.J. (175) 143

Van Zanten, A.P., Twijnstra, A., Ongerboer de Visser, B.W., Hart, A.A.M. and Nooyen, W.J. Tumour markers in the cerebrospinal fluid of patients with central nervous system metastases from extracranial malignancies (175) 157 Vergnes, H., see Brisson-Lougarre, A. (175) 121 Verhoeff, P.M.M., Peters, F.P.A.M.N., Steigstra, H. and Hafkenscheid, J.C.M. Behaviour of L-γ-glutamyl-4-nitroanilide and L-γ-glutamyl-3-carboxy-4-nitroanilide with respect to γ-glutamyltransferases of different origin (175) 129

Vesterberg, O., see Petrén, S. (175) 183 Vonk, R.J., see Koopman, B.J. (175) 143

Watson, I.D., see Reglinski, J. (175) 285 Wolthers, B.G., see Koopman, B.J. (175) 143

Yamaga, H., see Oda, O. (175) 321 Yamaguchi, A., see Usui, A. (175) 109 Yamanaka, N., see Oda, O. (175) 321 Yeager, P.R., see Gunter, E.W. (175) 329 Yoshiba, M., see Nagai, Y. (175) 27 Yoshida, M., see Oda, O. (175) 321 Yoshino, N., see Takahashi, H. (175) 113 Yu, S., see Osterloh, J. (175) 239

# Clinica Chimica Acta, Vol. 175

# Subject index

# Acetaldehyde

Ethanol toxicity; Red cell metabolism (Solomon, L.R. (175) 249)

#### Acetaminophen

Ion-pair; Chromatography; Theophylline; Salicylate (Osterloh, J. (175) 239)

### Acetylisoniazid

Isoniazid; Fluorescent analysis; Fluorescent chelate-phenotyping test (Ioannou, P.C. (175) 175)

#### Acid base

Ionized calcium; pH; In vivo; In vitro (Kancir, C.B. (175) 307)

## Acylcarnitine

C<sub>6</sub>-C<sub>12</sub> dicarboxylic acid; Reye's syndrome; FAB-MS (Tracey, B.M. (175) 79)

### Agarose gel

Isoelectric focusing; Alkaline phosphatase; Isoenzymes; Neutrophil; Human (Brisson-Lougarre, A. (175) 121)

## Alcohol consumption

Diabetes mellitus; gamma-Glutamyl-transpeptidase (Colloredo-Mels, G. (175) 189)

## Alcoholic liver disease

Prolidase; Prolinase; Fibrosis; Collagen (Brosset, B. (175) 291)

# Alkaline phosphatase

Isoelectric focusing; Agarose gel; Isoenzymes; Neutrophil; Human (Brisson-Lougarre, A. (175) 121)

### Anemia

Time-resolved fluorescence; Non-isotopic immunoassay; Europium; Streptavidin; Biotin; Monoclonal antibody; Fluorescent label; Ferritin; Iron metabolism (Khosravi, M.J. (175) 267)

## Anorexia nervosa

Cystic fibrosis: Lysosomal hydrolase; β-Heposaminidase; α-Mannosidase; Diabetes; Pancreatitis (Krall, E.A. (175) 1)

## Behçet's disease

Lipoprotein; Cholesterol (Mitamura, T. (175)

# Bilayer membrane

Liposome immunoassay; Passive agglutination method (Ihara, H. (175) 51)

#### Dille selle

Pool size; Fractional turnover rate; Deuteriumlabelled bile acid (Koopman, B.J. (175) 143)

#### Riotin

Time-resolved fluorescence; Non-isotopic immunoassay; Europium; Streptavidin; Monoclonal antibody; Fluorescent label; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

## Brain enzyme

Head injury; CSF enzyme; Prognostic marker (Armbruster, D.A. (175) 227)

#### .

Estrogen receptor; Lactate dehydrogenase; Cellularity; Soluble protein (Hawkins, R.A. (175)

# C<sub>6</sub>-C<sub>1</sub>, dicarboxylic acid

Acylcarnitine; Reye's syndrome; FAB-MS (Tracey, B.M. (175) 79)

### Cell membrane effects

Ethanol abuse; Transferrin; Sialic acid content; Liver dysfunction (Petrén, S. (175) 183)

## Cellularity

Estrogen receptor; Lactate dehydrogenase; Soluble protein; Breast cancer (Hawkins, R.A. (175)

Central nervous system metastasis

Cerebrospinal fluid; Meningeal metastasis; Discriminant analysis;  $\beta$ -Glucuronidase;  $\beta_2$ -Microglobulin (Van Zanten, A.P. (175) 157)

Cerebrospinal fluid

Central nervous system metastasis; Meningeal metastasis; Discriminant analysis;  $\beta$ -Glucuronidase;  $\beta_2$ -Microglobulin (Van Zanten, A.P. (175) 157)

Endotoxin (Inagaki, M. (175) 315)

## Cholestatic diseases

Prolyl 4-hydroxylase; Liver diseases; Hepatocellular damage (Nagai, Y. (175) 27)

#### Cholesterol

Lipoprotein; Behçet's disease (Mitamura, T. (175) 277)

Chromatography

Ion-pair; Acetaminophen; Theophylline; Salicylate (Osterloh, J. (175) 239)

Collagen

Prolidase; Prolinase; Alcoholic liver disease; Fibrosis (Brosset, B. (175) 291)

### Creatine

Creatinine; Creatine-phosphate; Urine; Equilibrium (Fuller, N.J. (175) 199)

Creatine-phosphate

Creatinine; Creatine; Urine; Equilibrium (Fuller, N.J. (175) 199)

#### Creatinina

Creatine; Creatine-phosphate; Urine; Equilibrium (Fuller, N.J. (175) 199)

CSF enzyme

Head injury; Prognostic marker; Brain enzyme (Armbruster, D.A. (175) 227)

Cystic fibrosis: Lysosomal hydrolase

β-Heposaminidase; α-Mannosidase; Diabetes; Pancreatitis; Anorexia nervosa (Krall, E.A. (175)

Dehydroepiandrosterone-sulfate

Digoxin-like immunoreactivity; Na/K-ATPase; Free fatty acid; Lysophosphatidylcholine; Hydrocortisone (Lau, B.W.C. (175) 67) Deuterium-labelled bile acid

Bile acid; Pool size; Fractional turnover rate (Koopman, B.J. (175) 143)

#### Dishetes

Cystic fibrosis: Lysosomal hydrolase; β-Heposaminidase; α-Mannosidase; Pancreatitis; Anorexia nervosa (Krall, E.A. (175) 1)

**Diabetes Day Care Unit** 

HPLC (Jerntorp, P. (175) 135)

Diabetes mellitus

gamma-Glutamyl-transpeptidase; Alcohol consumption (Colloredo-Mels, G. (175) 189)

Dicarboxylic acid

3-Hydroxyoctanoic acid; beta-Oxidation; Fatty acid metabolism; Hypoglycemia; 3-Hydroxyacyl-coenzyme A dehydrogenase (Kelley, R.I. (175) 19)

Digoxin-like immunoreactivity

Na/K-ATPase; Free fatty acid; Lysophosphatidylcholine; Dehydroepiandrosterone-sulfate; Hydrocortisone (Lau, B.W.C. (175) 67)

Discriminant analysis

Cerebrospinal fluid; Central nervous system metastasis; Meningeal metastasis;  $\beta$ -Glucuronidase;  $\beta_2$ -Microglobulin (Van Zanten, A.P. (175) 157).

Disseminated intravascular coagulation

Protein C; Snake venom; Warfarin; Hypocarboxylated protein C; Hereditary protein C deficiency (Takahashi, H. (175) 217)

Dovomblala

Leukemia; NMR; Glycolysis; In-vitro tumor model (Reglinski, J. (175) 285)

EIA. ELISA

Enzyme antigen immunoassay; Immunochemistry; Neuron specific enolase; Substrate; Serum samples; Small cell lung cancer (Sorensen, K. (175) 337)

Padatavia

Cerebrospinal fluid (Inagaki, M. (175) 315)

**Enzyme activity** 

γ-Glutamyltransferase; Various methods of determination; Multi-inductive component analysis (Verhoeff, P.M.M. (175) 129) Enzyme antigen imm

Enzyme antigen immunoassay EIA, ELISA; Immunochemistry; Neuron specific enolase: Substrate: Serum samples: Small cell lung cancer (Sorensen, K. (175) 337)

Enzyme imn

a-Human atrial natriuretic polypeptide; Peroxidase (Hashida, S. (175) 11)

Enzyme-linked immunosorbent assay

Pensinogen: Monoclonal antibody: Pentic ulcer: Stomach cancer (Huang, S.C. (175) 37)

Creatinine; Creatine; Creatine-phosphate; Urine (Fuller, N.J. (175) 199)

Erythrocyte

Galactose-galactokinase; Philadelphia variant of galactokinase (Soni, T. (175) 97)

Estrogen receptor

Lactate dehydrogenase; Cellularity; Soluble protein; Breast cancer (Hawkins, R.A. (175) 89)

Ethanol above

Transferrin: Sialic acid content: Cell membrane effects: Liver dysfunction (Petrén, S. (175) 183)

Ethanol toxicity

Acetaldehyde; Red cell metabolism (Solomon, L.R. (175) 249)

Time-resolved fluorescence; Non-isotopic immunoassay; Streptavidin; Biotin; Monoclonal antibody; Fluorescent label; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

FAR.MC

C6-C12 dicarboxylic acid; Acylcarnitine; Reye's syndrome (Tracey, B.M. (175) 79)

Fatty acid metabolism

3-Hydroxyoctanoic acid; Dicarboxylic acid; beta-Oxidation; Hypoglycemia; 3-Hydroxyacylcoenzyme A dehydrogenase (Kelley, R.I. (175) 19)

Time-resolved fluorescence; Non-isotopic immunoassay; Europium; Streptavidin; Biotin; Monoclonal antibody; Fluorescent label; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

Prolidase; Prolinase; Alcoholic liver disease; Collagen (Brosset, B. (175) 291)

Fluorescent analysis

Isoniazid: Acetylisoniazid: Fluorescent chelatephenotyping test (Ioannou, P.C. (175) 175)

Fluorescent chelate-phenotyping test

Isoniazid: Acetylisoniazid; Fluorescent analysis (Ioannou, P.C. (175) 175)

Fluorescent lahei

Time-resolved fluorescence; Non-isotopic immunoassay; Europium; Streptavidin; Biotin; Monoclonal antibody; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

Fractional turnover rate

Bile acid; Pool size; Deuterium-labelled bile acid (Koopman, B.J. (175) 143)

Free fatty acid

Digoxin-like immunoreactivity; Na/K-ATPase; Lysophosphatidylcholine; Dehydroepiandrosterone-sulfate; Hydrocortisone (Lau, B.W.C. (175)

Galactose-galactokinase

Erythrocyte; Philadelphia variant of galactokinase (Soni, T. (175) 97)

Gas chromatography-mass spectrometry

Stable isotope analysis; Urea kinetics; Urea assay; Urea metabolism; Hemodialysis (Nelson, J.E. (175) 59)

**B-Glucuronidase** 

Cerebrospinal fluid; Central nervous system metastasis; Meningeal metastasis; Discriminant analysis;  $\beta_2$ -Microglobulin (Van Zanten, A.P. (175) 157)

y-Glutamyltransfera

Enzyme activity; Various methods of determination: Multi-inductive component analysis (Verhoeff, P.M.M. (175) 129)

gamma-Glutamyl-transpeptidase Diabetes mellitus; Alcohol consumption (Colloredo-Mels, G. (175) 189)

Leukemia; NMR; Doxorubicin; In-vitro tumor model (Reglinski, J. (175) 285)

pH

Ionized calcium; Acid base; In vivo; In vitro (Kancir, C.B. (175) 307)

Head injury

CSF enzyme; Prognostic marker; Brain enzyme (Armbruster, D.A. (175) 227)

Health survey

Vitamin E; Oxidative degradation; High performance liquid chromatography (Gunter, E.W. (175) 329)

Hemodialysis

Gas chromatography-mass spectrometry; Stable isotope analysis; Urea kinetics; Urea assay; Urea metabolism (Nelson, J.E. (175) 59)

Hepatocellular damage

Prolyl 4-hydroxylase; Liver diseases; Cholestatic diseases (Nagai, Y. (175) 27)

**B-Henosaminidase** 

Cystic fibrosis: Lysosomal hydrolase; α-Mannosidase; Diabetes; Pancreatitis; Anorexia nervosa (Krall, E.A. (175) 1)

Hereditary protein C deficiency

Protein C; Snake venom; Warfarin; Hypocarboxylated protein C; Disseminated intravascular congulation (Takahashi, H. (175) 217)

High performance liquid chromatography

Vitamin E; Health survey; Oxidative degradation (Gunter, E.W. (175) 329)

HPLC

Diabetes Day Care Unit (Jerntorp, P. (175) 135)

Human

Isoelectric focusing; Agarose gel; Alkaline phosphatase; Isoenzymes; Neutrophil (Brisson-Lougarre, A. (175) 121)

α-Human atrial natriuretic polypeptide

Enzyme immunoassay; Peroxidase (Hashida, S. (175) 11)

Hydrocortisone

Digoxin-like immunoreactivity; Na/K-ATPase; Free fatty acid; Lysophosphatidylcholine; Dehydroepiandrosterone-sulfate (Lau, B.W.C. (175) 67) 3-Hydroxyacyl-coenzyme A dehydrogenase

3-Hydroxyoctanoic acid; Dicarboxylic acid; beta-Oxidation; Fatty acid metabolism; Hypoglycemia (Kelley, R.I. (175) 19)

3-Hydroxyoctanoic acid

Dicarboxylic acid; beta-Oxidation; Fatty acid metabolism; Hypoglycemia; 3-Hydroxyacylcoenzyme A dehydrogenase (Kelley, R.I. (175)

Hypocarboxylated protein C

Protein C; Snake venom; Warfarin; Hereditary protein C deficiency; Disseminated intravascular congulation (Takahashi, H. (175) 217)

Hypoglycemia

3-Hydroxyoctanoic acid; Dicarboxylic acid; beta-Oxidation; Fatty acid metabolism; 3-Hydroxyacyl-coenzyme A dehydrogenase (Kelley, R.I. (175) 19)

Immunochemistry

Enzyme antigen immunoassay; EIA, ELISA; Neuron specific enolase; Substrate; Serum samples; Small cell lung cancer (Sorensen, K. (175) 337)

In vitro

Ionized calcium; Acid base; pH; In vivo (Kancir, C.B. (175) 307)

In-vitro tumor model

Leukemia; NMR; Doxorubicin; Glycolysis (Reglinski, J. (175) 285)

in vivo

Ionized calcium; Acid base; pH; In vitro (Kancir, C.B. (175) 307)

**lonized** calcium

Acid base; pH; In vivo; In vitro (Kancir, C.B. (175) 307)

Ion-pair

Chromatography; Acetaminophen; Theophylline; Salicylate (Osterloh, J. (175) 239)

Ion-pair chromatography

Plasma NO<sub>2</sub>; Plasma NO<sub>3</sub>; Methemoglobin; Kinetics (Stein, C. (175) 167)

Iron metabolism

Time-resolved fluorescence; Non-isotopic im-

munoassay; Europium; Streptavidin; Biotin; Monoclonal antibody; Fluorescent label; Ferritin; Anemia (Khosravi, M.J. (175) 267)

### Isoelectric focusing

Agarose gel; Alkaline phosphatase; Isoenzymes; Neutrophil; Human (Brisson-Lougarre, A. (175) 121)

# Isoenzymes

Isoelectric focusing; Agarose gel; Alkaline phosphatase; Neutrophil; Human (Brisson-Lougarre, A. (175) 121)

#### ......

Acetylisoniazid; Fluorescent analysis; Fluorescent chelate-phenotyping test (Ioannou, P.C. (175) 175)

#### Kinetics

Plasma NO<sub>2</sub>; Plasma NO<sub>3</sub>; Ion-pair chromatography; Methemoglobin (Stein, C. (175)

## Lactate dehydrogenase

Estrogen receptor; Cellularity; Soluble protein; Breast cancer (Hawkins, R.A. (175) 89)

#### Leukemia

NMR; Doxorubicin; Glycolysis; In-vitro tumor model (Reglinski, J. (175) 285)

#### Linomentain

Cholesterol; Behçet's disease (Mitamura, T. (175) 277)

### Liposome immunoassay

Bilayer membrane; Passive agglutination method (Ihara, H. (175) 51)

#### Liver diseases

Prolyl 4-hydroxylase; Hepatocellular damage; Cholestatic diseases (Nagai, Y. (175) 27)

# Liver dysfunction

Ethanol abuse; Transferrin; Sialic acid content; Cell membrane effects (Petrén, S. (175) 183)

# Lysophosphatidylcholine

Digoxin-like immunoreactivity; Na/K-ATPase; Free fatty acid; Dehydroepiandrosterone-sulfate; Hydrocortisone (Lau, B.W.C. (175) 67)

#### - Managaldara

Cystic fibrosis: Lysosomal hydrolase; β-Heposaminidase; Diabetes; Pancreatitis; Anorexia nervosa (Krall, E.A. (175) 1)

## Meningeal metastasis

Cerebrospinal fluid; Central nervous system metastasis; Discriminant analysis;  $\beta$ -Glucuronidase;  $\beta_2$ -Microglobulin (Van Zanten, A.P. (175) 157)

# Methemoglobin

Plasma NO<sub>2</sub>; Plasma NO<sub>3</sub>; Ion-pair chromatography; Kinetics (Stein, C. (175) 167)

## Methodology

Zinc; Plasma; Serum (English, J.L. (175) 211)

## B.-Microelobulin

Cerebrospinal fluid; Central nervous system metastasis; Meningeal metastasis; Discriminant analysis; β-Glucuronidase (Van Zanten, A.P. (175) 157)

## Monoclonal antibody

Pepsinogen; Enzyme-linked immunosorbent assay; Peptic ulcer; Stomach cancer (Huang, S.C. (175) 37)

Time-resolved fluorescence; Non-isotopic immunoassay; Europium; Streptavidin; Biotin; Fluorescent label; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

# Multi-inductive component analysis

Enzyme activity; y-Glutamyltransferase; Various methods of determination (Verhoeff, P.M.M. (175) 129)

## Na / K-ATPase

Digoxin-like immunoreactivity; Free fatty acid; Lysophosphatidylcholine; Dehydroepiandrosterone-sulfate; Hydrocortisone (Lau, B.W.C. (175) 67)

### Neuron specific enolase

Enzyme antigen immunoassay; EIA, ELISA; Immunochemistry; Substrate; Serum samples; Small cell lung cancer (Sorensen, K. (175) 337)

#### Neutrophil

Isoelectric focusing; Agarose gel; Alkaline phosphatase; Isoenzymes; Human (Brisson-Lougarre, A. (175) 121)

#### NMR

Leukemia; Doxorubicin; Glycolysis; In-vitro tumor model (Reglinski, J. (175) 285)

### Non-isotopic immunoassa

Time-resolved fluorescence; Europium; Streptavidin; Biotin; Monoclonal antibody; Fluorescent label; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

#### hets-Oxidation

3-Hydroxyoctanoic acid; Dicarboxylic acid; Fatty acid metabolism; Hypoglycemia; 3-Hydroxyacyl-coenzyme A dehydrogenase (Kelley, R.I. (175) 19)

### Oxidative degradation

Vitamin E; Health survey; High performance liquid chromatography (Gunter, E.W. (175) 329)

#### **Pancreatitis**

Cystic fibrosis: Lysosomal hydrolase; β-Heposaminidase; α-Mannosidase; Diabetes; Anorexia nervosa (Krall, E.A. (175) 1)

# Passive agglutination method

Bilayer membrane; Liposome immunoassay (Ihara, H. (175) 51)

#### Pepsinogen

Enzyme-linked immunosorbent assay; Monoclonal antibody; Peptic ulcer; Stomach cancer (Huang, S.C. (175) 37)

# Peptic ulcer

Pepsinogen; Enzyme-linked immunosorbent assay; Monoclonal antibody; Stomach cancer (Huang, S.C. (175) 37)

# Peroxidase

α-Human atrial natriuretic polypeptide; Enzyme immunoassay (Hashida, S. (175) 11)

# Philadelphia variant of galactokinase

Galactose-galactokinase; Erythrocyte (Soni, T. (175) 97)

#### Plasma

Zinc; Serum; Methodology (English, J.L. (175) 211)

# Plasma NO<sub>2</sub>

Plasma NO<sub>3</sub>; Ion-pair chromatography; Methemoglobin; Kinetics (Stein, C. (175) 167)

### Plasma NO.

Plasma NO<sub>2</sub>; Ion-pair chromatography; Methemoglobin; Kinetics (Stein, C. (175) 167)

#### Plasma protein

Rheumatoid arthritis; Two-dimensional electrophoresis (Oda, O. (175) 321)

#### Pool size

Bile acid; Fractional turnover rate; Deuteriumlabelled bile acid (Koopman, B.J. (175) 143)

### Prognostic marker

Head injury; CSF enzyme; Brain enzyme (Armbruster, D.A. (175) 227)

#### Prolidese

Prolinase; Alcoholic liver disease; Fibrosis; Collagen (Brosset, B. (175) 291)

#### Prolingse

Prolidase; Alcoholic liver disease; Fibrosis; Collagen (Brosset, B. (175) 291)

## Prolyl 4-hydroxylase

Liver diseases; Hepatocellular damage; Cholestatic diseases (Nagai, Y. (175) 27)

### Protein C

Snake venom; Warfarin; Hypocarboxylated protein C; Hereditary protein C deficiency; Disseminated intravascular coagulation (Takahashi, H. (175) 217)

# Red cell metabolism

Acetaldehyde; Ethanol toxicity (Solomon, L.R. (175) 249)

## Reye's syndrome

C<sub>6</sub>-C<sub>12</sub> dicarboxylic acid; Acylcarnitine; FAB-MS (Tracey, B.M. (175) 79)

## Rheumatoid arthritis

Plasma protein; Two-dimensional electrophoresis (Oda, O. (175) 321)

# Salicylate

Ion-pair; Chromatography; Acetaminophen; Theophylline (Osterloh, J. (175) 239)

#### C....

Zinc; Plasma; Methodology (English, J.L. (175) 211)

# Serum samples

Enzyme antigen immunoassay; EIA, ELISA; Immunochemistry; Neuron specific enolase; Substrate; Small cell lung cancer (Sorensen, K. (175) 337).

## Siglic acid content

Ethanol abuse; Transferrin; Cell membrane effects; Liver dysfunction (Petrén, S. (175) 183)

#### Small cell lung cancer

Enzyme antigen immunoassay; EIA, ELISA; Immunochemistry; Neuron specific enolase; Substrate; Serum samples (Sorensen, K. (175) 337)

#### Snake venom

Protein C; Warfarin; Hypocarboxylated protein C; Hereditary protein C deficiency; Disseminated intravascular coagulation (Takahashi, H. (175) 217)

#### Soluble protein

Estrogen receptor; Lactate dehydrogenase; Cellularity; Breast cancer (Hawkins, R.A. (175) 89)

### Stable isotope analysis

Gas chromatography-mass spectrometry; Urea kinetics; Urea assay; Urea metabolism; Hemodialysis (Nelson, J.E. (175) 59)

## Stomach cancer

Pepsinogen; Enzyme-linked immunosorbent assay; Monoclonal antibody; Peptic ulcer (Huang, S.C. (175) 37)

## Streptavidin

Time-resolved fluorescence; Non-isotopic immunoassay; Europium; Biotin; Monoclonal antibody; Fluorescent label; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

#### Substrate

Enzyme antigen immunoassay; EIA, ELISA; Immunochemistry; Neuron specific enolase; Serum samples; Small cell lung cancer (Sorensen, K. (175) 337)

# Theophylline

Ion-pair; Chromatography; Acetaminophen; Salicylate (Osterloh, J. (175) 239)

#### Time-resolved fluorescence

Non-isotopic immunoassay; Europium; Strep-

tavidin; Biotin; Monoclonal antibody; Fluorescent label; Ferritin; Anemia; Iron metabolism (Khosravi, M.J. (175) 267)

# Transferrin

Ethanol abuse; Sialic acid content; Cell membrane effects; Liver dysfunction (Petrén, S. (175) 183)

# Two-dimensional electrophoresis

Rheumatoid arthritis; Plasma protein (Oda, O. (175) 321)

# Urea assay

Gas chromatography-mass spectrometry; Stable isotope analysis; Urea kinetics; Urea metabolism; Hemodialysis (Nelson, J.E. (175) 59)

#### Urea kinetics

Gas chromatography-mass spectrometry; Stable isotope analysis; Urea assay; Urea metabolism; Hemodialysis (Nelson, J.E. (175) 59)

#### Urea metabolism

Gas chromatography-mass spectrometry; Stable isotope analysis; Urea kinetics; Urea assay; Hemodialysis (Nelson, J.E. (175) 59)

#### Urine

Creatinine; Creatine; Creatine-phosphate; Equilibrium (Fuller, N.J. (175) 199)

## Various methods of determination

#### Vitamin |

Health survey; Oxidative degradation; High performance liquid chromatography (Gunter, E.W. (175) 329)

### Warfarin

Protein C; Snake venom; Hypocarboxylated protein C; Hereditary protein C deficiency; Disseminated intravascular coagulation (Takahashi, H. (175) 217)

#### Zinc

Plasma; Serum; Methodology (English, J.L. (175)

# (continued from cover)

Stability of vitamin E in long-term stored serum (CCA 04211)	
E.W. Gunter, W.J. Driskell and P.R. Yeager (USA)	329
An enzyme antigen immunoassay for the determination of neuron-specific enolase in serum samples (CCA 04216)	
K. Sorensen, U. Brodbeck, E. Paus and B. Norgaard-Pedersen (Switzerland, Norway, Denmark)	337
Letters to the Editor	
Diagnosis of Zellweger syndrome by rectal biopsy: immunoblot of peroxisomal β-oxidation enzyme and activity of dihydroxyacetone phosphate acyltransferase in rectal mucosa (CCA 04207)	
N. Shimozawa, Y. Suzuki, T. Orii and T. Hashimoto (Japan)	345
The frequency of C <sub>4</sub> + cholinesterase in the normal Japanese population (CCA 04208)	
M. Oimomi, J. Ohkawa, S. Saeki and S. Baba (Japan)	349
Author index	351

